

Claims

1. Gas-generating substance, characterised in that
it consists of a mixture of laughing gas and one
5 or more fuels which are solid at room temperature
and standard pressure.
2. Gas-generating substance, characterised in that
it consists of a mixture of nitrogen monoxide and
10 one or more fuels which are solid at room
temperature and standard pressure.
3. Gas-generating substance, characterised in that
it consists of a mixture of laughing gas with
15 nitrogen monoxide and one or more fuels which are
solid at room temperature and standard pressure.
4. Gas-generating substance according to one or more
of claims 1 to 3, characterised in that it
20 additionally contains, in order to control the
reactivity of the gases, inert gases, preferably
carbon dioxide, air, helium, neon and/or argon.
5. Gas-generating substance according to one or more
25 of claims 1 to 4, characterised in that it
contains additions of smell-intensive gases such
as e.g. mercaptans in small amounts for detecting
leaks.
6. Gas-generating substance according to one or more
30 of claims 1 to 5, characterised in that it
contains additions for improving the smell
properties of the combustion gases in the when
utilisation takes place.
7. Gas-generating substance according to one or more

of claims 1 to 6, characterised in that it contains vanillin.

- 5 8. Gas-generating substance according to one or more
of claims 1 to 7, characterised in that it
contains polymers from the group of the
hydrocarbons such as ethylene, propylene,
isoprene, styrene as fuels.
- 10 9. Gas-generating substance according to one or more
of claims 1 to 8, characterised in that it
contains oxygen-containing fuels which are
derived for example from carboxylic acids such as
polyvinyl acetates, polymethacrylates,
15 polyterephthalates and/or other polyesters,
polyethers, polycarbonates, polyoxymethylenes,
oligo- and polysaccharides such as sugar,
cellulose, starch, polyvinyl acetals or polyvinyl
alcohols.
- 20 10. Gas-generating substance according to one or more
of claims 1 to 9, characterised in that it also
contains explosive substances as additional
reactive components of the fuels.
- 25 11. Gas-generating substance according to one or more
of claims 1 to 10, characterised in that it
contains as reactive components one or more
compounds from the group nitroguanidine (NiGu),
30 derivatives of tetrazole such as 5-
aminotetrazole, 5-aminotetrazole nitrate,
bistetrazole amine or bistetrazole,
aminoguanidine nitrate, diaminoguanidine nitrate,
triaminoguanidine nitrate, guanidine nitrate,
35 dicyanodiamidine nitrate, diaminoguanidine
azotetrazolate, nitrotriazolone, dicanediamidine

nitrate, hexogen, octogen.

12. Gas-generating substance according to one or more
of claims 1 to 11, characterised in that it
5 contains as fuel urea, organic acids (e.g.
fumaric acid, ascorbic acid, oxalic acid), cork,
wood, metals (e.g. aluminium, titanium) and/or
non-metals (e.g. boron, silicon), nitrides,
azides and/or inorganic benzene (B.N.).
- 10 13. Gas-generating substance according to one or more
of claims 1 to 12, characterised in that the
fuels are used in the form of powder, granules,
pressings such as e.g. tablets, or in the case of
15 polymers e.g. also as cut fibres or twisted
fibres, mats, woven fabrics, porous foams e.g. of
polyurethanes.
14. Gas-generating substance according to one or more
20 of claims 1 to 13, characterised in that specific
embodiments may be surface-treated by being, for
example, impregnated or mixed with liquids or
pasty substances, to control the burn-off.
- 25 15. Gas-generating substance according to one or more
of claims 1 to 14, characterised in that it
contains as further additives catalysts, for
example ferrocene and derivatives, iron or copper
acetylacetonate.
- 30 16. Gas-generating substance according to one or more
of claims 1 to 15, characterised in that it
contains as additions one or more oxidising
agents such as nitrates of alkali and alkaline
35 earth elements, perchlorates of alkali and
alkaline earth elements, ammonium nitrate,

5 ammonium perchlorate, zinc peroxide, perborates, peroxodisulphates, permanganates, tin dioxide, manganese dioxide, oxidising agents derived from nitramines and mixtures of these components and/or porosity generators, for example ammonium hydrogencarbonate, acetone dicarboxylic acid, azoiso-butyronitrile and/or hollow plastics spheres.